

PETROV, Ye., polkovnik.

Radar stations for locating and directing. Voen.vest. 36 no.1:67-73
(MLRA 10:2)

Ja '57.

(Radar)

PETROV, Yevgeniy Andreyevich; OVCHARENKO, Nikolay Il'ich; KASATKIN, A.S.,
prof., retsenzent; BORISOV, Ye.V., inzh., retsenzent; POPOV, G.A.,
inzh., red.; KUZ'MINA, Ye.M., red. izd-va; DOBRITSYNA, R.I., tekhn.
red.; SMIRNOVA, G.V., tekhn. red.

[Electronic devices for the protection of workers in the machinery
industry] Elektronnye ustroystva dlia okhrany truda v mashinostroenii.
Moskva, Mashgiz, 1961. 119 p. (MIRA 14:11)
(Industrial safety) (Electronic instruments)

PETROV, Ye.A.

"Point-contact" MT-54 thermistor used as a miniature transducer
for a thermohydrometer. Uch. zap. MOPI 92:85-92 '60. (MIRA 14:9)

(Thermistors) (Thermoelectric apparatus and appliances)

PETROV, Ye.A., inzh.

Organizing hoisting transportation at the plant. Bezop.truda v
prom. 1 no.10:30 0 '57. (MIRA 10:11)
(Kolomna--Machine-tool industry) (Kolomna--Hoisting machinery)

PETROV, Ye.A., inzh.; OVCHARENKO, N.I.

Photoelectric automatic control of lighting. Prom.energ. 12

no.8:24-27 Ag '57.

(MIRA 10:10)

(Photoelectric cells)

(Electric lighting)

PETROV, Ye., inzh.

Pneumatic glass cleaning mechanisms. Okhr. truda i sovs. strakh.
3 no.5:68-69 My '60. (MIRA 13:12)
(Cleaning machinery and appliances)

1. LAKHTIN, M. M., PETROV, Y. A., SHILOV, A. A.
2. OS R (600)
3. Technology
4. Problems of Soviet technology in the new edition of the Large Soviet Encyclopedia. Sov. kniga no. 11, 1970.

9. Monthly List of Russian Acquisitions, Library of Congress, Mar. 1971. Incl. enclosed.

L 42470-65 EEO-2/EWT(d)/FSS-2/EEC-4/EEC(t)/EED-2 Pn-4/Pp-4/Pac-4
ACCESSION NR: AP5006635 S/0146/65/008/001/0055/0061

AUTHOR: Funtov, N. M.; Smirnov, G. V.; Petrov, Ye. A.; Osipov, Yu. M. 32
31
B

TITLE: Comparison of several methods of converting a single electrical signal into a series of discrete values

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 55-61

TOPIC TAGS: signal conversion, continuous discrete signal conversion

ABSTRACT: In converting a single continuous signal into a series of discrete signals, it is essential to know the error that accompanies the conversion. The errors inherent to these methods are theoretically compared: (1) Conversion of voltage into a proportional time interval; (2) Use of a number of discrete levels of the comparison voltage (includes PAM); (3) Use of a number of comparison voltages proportional to the weight of binary positions. It is found that the first method requires only one-half or less the equipment necessary for the other

Card 1/2

L 42470-65

ACCESSION NR: AP5006635

methods; however, it is slow and only applicable for coding signals of a few milliseconds' duration. The second method does not provide high accuracy and is suitable for recording signals of a few dozen microsecond duration. The third method is suitable for those applications where the signal is of hundreds of microsecond duration, high accuracy is not required, and the signal dynamic range is not large. Orig. art. has: 4 figures and 12 formulas,

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki (Leningrad Institute of Fine Mechanics and Optics)

SUBMITTED: 02Dec63

ENCL: 00

SUB CODE: DP

NO REF SOV: 001

OTHER: 000

Card 2/2

L 55113-65

EWT(m)/EPF(c)/EPR/EWP(j)/T

Pc-l/Pr-l/PS-l WN/RM

ACCESSION NR: AP5015278

UR/0286/65/000/009/0064/0064
678.02:66.095.3:664.049.7

AUTHOR: Petrov, Ye. A.; Tarakanov, O. G.; Fedorov, A. A.; Grinevich, K. P.

TITLE: Preparation of foamed polyurethans. Class 39, No. 170648

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 64

TOPIC TAGS: foamed polyurethan, organosilicon liquid

ABSTRACT: An Author Certificate has been issued for a preparative method for foamed polyurethans. To improve the mechanical properties of the material and to eliminate expensive and toxic catalysts, GKKh-11 and GKKh-12 type organosilicon liquids are used as catalysts and emulsifiers.

ASSOCIATION: Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol (Vladimir Scientific Research Institute of Synthetic Resins)

SUBMITTED: 23Mar64

ENCL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4024

Card 1/1

L 43620-66 ET(M)/T/ET(M) JVE/CI LND/PM
ACC NR: AP6017861

SOURCE CODE: UR/0069/66/028/003/0431/0436

AUTHOR: Petrov, Ye. A.; Tarakanov, O. G.

ORG: Vladimir Scientific Research Institute of Synthetic Resins (Vladimirskiy nauchno-issledovatel' skiy institut sinteticheskikh smol)

TITLE: Foaming of solutions of surface-active substances in urethane oligomers

SOURCE: Kolloidnyy zhurnal, v. 28, no. 3, 1966, 431-436

TOPIC TAGS: solution property, oligomer, polyurethane, surface active agent

ABSTRACT: Foaming of solutions of surface-active substances in polyurethane oligomers and the mechanism of foam stabilization have been investigated. The solution properties of surface-active foams are stabilized according to the Gibbs—Marangoni mechanism with the formation of volumetric structures. As the forming structures are characterized by a low strength and the foams have a low stability, the Gibbs—Marangoni mechanism is decisive in the stabilization process. The

Card 1/2

UDC: 541.18.05

L 43698-66

ACC NR: AP6017861

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240520006-1"

Authors thank Academicians P. A. Rebinder and I. N. Vlodavts for their interest in this work and their valuable instructions. Orig. art. has: 4 figures and 1 table.
[Based on authors' abstract] [NT]

SUB CODE: 11/ SUBM DATE: 27Jan65/ ORIG REF: 004/ OTH REF: 003/

Card 2/2

FUNTSEV, N.M.; SMIRNOV, G.V.; PETROV, Ya.A.; OLSHCHENKO, A.P.

Comparative evaluation of a method of the
single electric signal to a series of discrete values.
Voenob.zav.; prib. 8 no.1:75-61 105.

Leningradskiy inzhenernyy universitet
Leningradskiy tekhnicheskii universitet.

PETROV, Ye.A.

Tank for boiling and cooling water. Dig. 1 san. no.10:48 0 '55.
(TANKS) (MLRA 9:1)

Петров, Ye. A.

USSR/ Engineering

Card 1/1 Pub. 103 - 12/22

Authors : Petrov, Ye. A.

Title : Cantilever-swing crane

Periodical : Stan. i instr. 6, page 31, June 1955

Abstract : A cantilever-swing crane introduced at Kolomensk Heavy Machine Plant, is briefly described. The crane weighs 105 kg, and is used for loading and unloading of work for metal cutting lathes, as well as the assembly of medium-size machine-tools. Illustration.

Institution :

Submitted :

L 47022-25 D4T(m)/L4T(m)/T/L4T(t)/L4T
ACC NR: AT6024918 (A, N)

JLP(c) JL, JH

SOURCE CODE: UR/2981/66/000/004/0085/0106

AUTHOR: Anisimova, N. V.; Archakova, Z. N.; Belyayev, S. Yo.; Danilov, Yu. S.; Kish-
kina, S. I.; Petrov, Ye. A.; Plekhanova, N. G.; Ponar'ina, T. K.; Radetskaya, E. M.;
Strunin, B. M.

ORG: none

TITLE: Mechanical properties of VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy
(Heat resistant and high-strength alloys), 85-106

TOPIC TAGS: aluminum alloy, solid mechanical property / VAD23 aluminum alloy

ABSTRACT: Sections and sheets of VAD23 alloy were tested in the artificially aged /
state (16 hr at 170°C). From the standpoint of creep, stress-rupture strength and re-
covered strength, the properties of VAD23 are 20-25% higher than those of D16T under
long-term performance conditions at 125-150°C. In compression at temperatures up to
150-175°C, the yield points of sheets and sections of VAD23 are 10-20% higher than in
extension. From the standpoint of endurance and fatigue strength, VAD23 is not infer-
ior to V95 alloy. VAD23 has a high sensitivity to notching and sharp cracks; sheets
of VAD23 alloy display a high sensitivity to notching and cracking as compared to
pressed semifinished products. / Orig. art. has: 12 figures and 14 tables.

SUB CODE: 11/ SUBM DATE: none / ORIG REF: 003/ OTH REF: 005
Card 1/1 vmb

PEREPECHKIN, L.P.; FILIPPENKO, K.A.; PETROV, Ye.A.

Prospects for the development of the production of acetate
fibers, and their importance. Khim.volok. no.1:64-65 '63.
(MIRA 16:2)

1. Nauchno-issledovatel'skiy institut sinteticheskikh smol, g.
Vladimir.
(Textile fibers, Synthetic) (Cellulose acetates)

PETROV, Ye.A.; LUSHNIKOV, F.A., red.; SOKOLINSKIY, I.Ye., tekhn. red.

[Astronauts] Kosmonavty. Moskva, Izd-vo gazety "Krasnaia zvezda," 1962. 62 p. (Bibliotekha "Krasnoi zvezdy," no.7-8 (91-92))
(Astronauts) (MIRA 15:6)

PETROV, Ye.; POZHIDAYEVA, M. G. red.; MARAKASOVA, L. P. tekhn. red.

[~~Astronauts~~ notes of a group leader] Kosmonavty; zapiski
rukovoditel'nykh gruppy Moskva, Izd-vo "Sovetskaya Rossiya,"
1962. 127 p. (MIRA 15.7)
(Astronauts) (Gagarin, Yuri Alekseevich. 1934-)
(Titov, German Stepanovich 1935)

OSIPOVA, T.N.; PETROV, Ye.A.; FARBEROVA, B.P.; KHROMCHENKO, V.T.; VESELKINA,
A.A., red.; KIRSANOVA, N.A., tekhn.red.

[Museum of Industrial Safety of the All-Union Central Council of
Trade Unions; a description of exhibits] Muzei okhrany truda
VTsSPS; opisaniye eksponatov. Izd-vo VTsSPS Profizdat, 1956.
229 p. (MIRA 12:3)
(Industrial safety) (Moscow--Industrial museums)

KRYUKOVSKIY, Nikolay Nikitovich; PETROV, Ye.A., inzhener, redaktor;
GRUSHEVSKAYA, G.M., redaktor izdatel'stva; SEMEL'EINA, S.I.,
tekhnicheskij redaktor; UVAROVA, A.P., tekhnicheskij redaktor

[Production of electrodes for arc welding] Proizvodstvo elektrodov
dlya dugovoi svarki. Izd. 2-oe. Moskva, Gos. nauchno-tekhn. izd-vo
mashinostroit. lit-ry, 1956. 275 p. (MLBA 9:7)
(Electrodes) (Electric welding)

PETROV, Ye.A., inzhener; OVCHARENKO, N.I., inzhener.

Electronic protective arrangement. Prom.energ.ll no.4:5-8 Ap '56.

(MIRA 9:7)

(Machinery--Safety appliances) (Electronic apparatus and appliances)

PETROV, Ye.A., inzhener; OVCHARENKO N.I., inzhener.

Protective device employing a radioactive isotope. Prom.energ.
ll no.9:19-21 S '56. (MLRA 9:11)

(Electric apparatus and appliances)

(Radioisotopes--Industrial applications)

PETROV, Ye.A.

Continuous action saturation device. Gig. 1 sen. 21 no.11:79 N '56.
(CARBONATED WATERS)
(MLRA 10:2)

PETROV, Ye.A.

Protective shield for tool sharpener-grinders. Stan.1 instr. 27
no.1:37 Ja '56.

(MLRA 9:5)

(Grinding and polishing)

PETROV, Ye.A. (Uryupinsk)

Work in a secondary technical school inculcating labor discipline.
Mat. v shkole no.3:45-46 My-Je '62. (MIRA 15:7)
(Education, Cooperative)

PETROV, Ye. A.

USSR/Cultivated Plants - Grains.

M-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91640

Author : Petrov, Ye.A., Grammatikati, O.G.

Inst : Engelsevskaya Experimental Reclamation Station.

Title : Water Consumption of Corn with Estuary Irrigation.

Orig Pub : Kukuruz, 1957, No 2, 34-39.

Abstract : In 1956 Engelsevskaya Experimental Reclamation Station conducted observations on the dynamics of soil moisture and the growth of corn in estuary irrigation. The drying of the soil in the course of the vegetative period took place mainly in the 0 - 1 m stratum; approximately 25% of the water consumption took place at the water store in the 1 - 2 m stratum; the water in 2 - 3 m stratum was hardly used. The degree to which the different soil strata dried corresponded in general to the nature

Card 1/2

AUTHORS: Petrov, Ye. A., Ivcharenko, N. I., Engineers 01.04.1977 14

TITLE: Instruments Testing the Good Condition of an Electric Tool's Ground Wire (Prilozheniya dlya proverki ispravnosti zemel'nykh kabelej provoda elektroistrumental') Exchange of Experience (Obmen opytom)

PERIODICAL: Energetik, 1974, No. 4, pp. 41-42, 10000

ABSTRACT: Since it is dangerous to test the condition of a one-phase electric drill with the help of a control lamp or a voltmeter, the lower engineering division of VIMV (the Vsesoyuznyy institut aviamotorestroyeniya - All-Union Institute of Aviation Motor Construction) developed another testing unit. Its technical structure as well as operation method is given in the article. The lamps used with the new tester are of the SM-30 type (28 V and 0.17 A). Both tools with a combined plug-connector and ground-contact, and those not having that combination, can be tested with the new unit. The author re-

Card 1/2

017001-86-1117 06

Instruments Testing the Good Condition of an Electric Tool's Ground Wire
Exchange of Experience.

marks at the end, that the new system can only be applied
if the power network's neutral lead is grounded.
There is 1 photo and 1 circuit diagram.

Card 2/2

AUTHORS: Petrov, Ye.A., and Ovcharenko, N.I.

94-4-13/25

TITLE: A Relay Automatic Equipment Based on Semi-conductors that is Free from Explosion Risk (Vzryvobezopasnoye rel'e avtomatiki na poluprovodnikakh)

PERIODICAL: Promyshlennaya Energetika, 1978, Vol.13, No.4, pp. 24 - 26 (USSR).

ABSTRACT: Vacuum tubes are not very suitable in protective devices in explosive atmospheres. The development of semi-conducting crystal rectifiers and amplifiers makes possible protective equipment of greater reliability. Transistorised protective equipment for use in mines has been developed at the Dnepropetrovsk Selenium Rectifier Works (Dnepropetrovskiy zavod). Their flameproof mining-type electronic relay, type PBYB-2, is of very wide application and can be used for sparkless remote control of power equipment and for emergency signalling. The circuit, shown in Fig.1, consists of an amplifier using a crystal triode, type 73A, in the circuit of which is the operating coil of a relay. The amplifier is supplied by a semi-conducting rectifier made up of germanium diodes. The method of operation of the circuit is described. The relay is very sensitive and responds if the resistance between the appropriate contacts becomes less than 500 000 Ω . 1 c.w., therefore,

Card1/2

94-4-13/25
A Relay Automatic Equipment Based on Semi-conductors that is Free
from Explosion Risk

be used directly as a photo-electric relay. A number of other applications are described, including level indication in fuel bunkers, signalling and remote control. The equipment is designed for intrinsically-safe control with a voltage of 3 V; the maximum current in the control circuit is 45 mA, and with the greatest possible voltage of 125 V, the current is 0.25 mA. The equipment itself can be assembled in the flameproof enclosure illustrated in Fig.3. Production of the equipment is to be organised this year. There are 3 figures.

AVAILABLE: Library of Congress
Card 2/2

67474

SCV/146-2-4-19/19

~~9(1)~~ 9.1000

AUTHOR: Vorob'yev, Ye. A., Aspirant; Petrov, Ye. A.,
Engineer; Tennison, G.G., Engineer; Filippov, N.N.,
Senior Instructor

TITLE: An Installation for Measuring and Automatically Re-
cording Directional Patterns of Super-High-Frequency
Antennas,

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroye-
niye, 1959, Nr 4, pp 152-154 (USSR)

ABSTRACT: In 1958-59, under the supervision of Senior Instructor
N.N. Filippov, the authors developed a high-accuracy
installation automatically recording the directional
patterns of super-high-frequency antennas. The in-
stallation is shown in a diagram (Figure 1) and a pho-
tograph (Figure 2). For continuous automatic recor-
ding, the modernized "EFF-C9" automatic recorder is
used, whose recording tape moves with a velocity of
60 to 20 000 mm/hour. The equipment can be used to
measure the recorded directional patterns for adjusting
and regulating antenna test units in laboratories as

Card 1/2

67474

SCV/146-2-4-19/19

An Installation for Measuring and Automatically Recording Directional Patterns of Super-High-Frequency Antennas

well as in the open air. This article was recommended by the Kafedra radiopriyemnykh i radioperedayushchikh ustroystv (The Chair of Radio-Transmitting and Radio-Receiving Devices). There is 1 diagram, and 1 photograph.

ASSOCIATION: Leningradskiy institut tochnoy mekhaniki i optiki
(The Leningrad Institute of Precision Mechanics and Optics).

SUBMITTED: July 29, 1959.

Card 2/2

PETROV, Ye.A.

Protecting cutter shaft of jointing machines. Der.prom. 8
no.2:24 P '59. (MIRA 12:2)
(Jointer (Woodworking machine))

PESTOV, H.N.; MAMIRIN, A.I.; PETROV, Ye.A.

Mechanization of the unloading of sulfur at warehouses. Khim.
volok. no.1:65-66 '60.
(MIRA 13:6)

1. Kalininskiy kombinat.
(Kalinin--Textile fibers, Synthetic) (Sulfur)
(Loading and unloading)

L 04193-57
ACC NR: AP6028590

(N)

SOURCE CODE: UR/0129/66/000/008/0062/0064

AUTHOR: Raytbarg, L. Kh.; Kozlovskaya, V. P.; Babykina, I. M.; Petrov, Ye. A.

ORG: none

TITLE: The dependence of the properties of cold-extruded semifinished products made from aluminum alloys on the billet condition

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1966, 62-64

TOPIC TAGS: aluminum alloy, extrusion, extruded aluminum, mechanical property, heat treatment, cast structure, annealing, homogenization heat treatment, grain structure, metallographic examination / AD1 aluminum alloy, AV aluminum alloy, AMg aluminum alloy, D1 aluminum alloy

ABSTRACT: Optimal heat treatments were developed for aluminum alloy billets used in making cold-extruded tubes. Alloys AD1, AV, AMg, and D1 were extruded on a mechanical press into tubes having diameters of 15×12 , 16×14 , and 16×15 . The original temperature of 15-20°C increased to 250-350°C after extrusion. Mechanical properties are given for cast, annealed, and homogenized billets and tubes made from each. Cast and previously extruded billets of AD1 and AMg alloys performed identically in tube extrusion; extruded AV alloy billets had better yield strength and reduction in area; and annealed D1 billets had the highest plasticity. Microstructures of cast and ex-

Card 1/2

UDC: 620.17:669.716:621.78

04198-7

ACC NR: AP6028590

truded D1 billets and the semifinished tubes made from these were shown. The grain structure of tubes made from cast billets was smaller and more uniform, while those made from extruded D1 billets--large grained and elongated. Optimum quenching temperatures for cold extruded AV tubes were 515-520°C. By heating in a circulating-air pit furnace after quenching, the maximum properties were obtained after holding for 10 min; the properties did not improve if the holding time was increased to 30 min. An increase in quenching temperature from 480 to 500°C for alloy D1 resulted in raising the yield strength by 2 kg/mm². Orig. art. has: 1 figure, 2 tables.

SUB CODE: 11,13,20/SUBM DATE: none

Card 2/2 *LC*

OSIPOV, Aleksandr Pavlovich; KOVALENKO, Innokentiy Georgiyevich; PETROV, Yevgeniy Aleksandrovich; FILATOVA, I.T., red.; RAKOV, S.I., tekhn.red.

[The Soviet worker and automation] Sovetskii rabochii i avtomatizatsiya; tekhnicheskii progress i podgotovka rabochikh kadrov. Moskva, Izd-vo VTsSPS Profizdat, 1960. 214 p. (MIRA 13:11)
(Machinery industry) (Automation)
(Technical education)

PEPROV, Ye.

Air raid alert Voen. znani. 25 no. 10:2 0 '49. (MIRA 13:3)
(Air raid warning systems)

PETROV, Ye.D., doktor med.nauk

Importance of a long subfebrile state in tuberculosis. Vrach.delo
no.11:48-52 N '62. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut meditsinskoy klimatologii
i klimatoterapii imeni Sechenova i kafedra ftiziatrit (zav. -
doktor med.nauk Ye.D. Petrov) Kiyevskogo instituta usovershenst-
vovaniya vrachey.

(TUBERCULOSIS)

(FEVER)

(CRIMEA--HEALTH RESORTS WATERING PLACES, ETC.)

PERKOV, Ye.D

SORKIN, A.Z., professor; KIPTENKO, N.D., kandidat meditsinskikh nauk; GOROVAYA, G.Ya.; KASHINSKAYA, K.A.; EYNIS, V.L., professor, direktor; STEPIN, S.A., kandidat meditsinskikh nauk, zaveduyushchiy; PETROV, Ye.D., kandidat meditsinskikh nauk, direktor; LYASHENKO, A.Ye., glavnyy vrach.

Comparative evaluation of immediate results of hospitalizing children with tuberculosis of the bones under the climate conditions of Yevpatoria and of the Moscow area. Probl. tub. no.3:35-38 My-Je '53. (MLHA 6:7)

1. Moskovskiy gorodskoy nauchno-issledovatel'skiy tuberkuleznyy institut (for Eynis). 2. Yevpatoriyskaya kostnotuberkuleznaya klinika instituta klimatoteranii tuberkuleza (for Stepin). 3. Institut klimatoteranii tuberkuleza (for Petrov). 4. Pervaya Zagorodnaya tuberkuleznaya bol'nitsa Mosgorzdravotdela v Mytishchakh (for Lyashenko).

(Tuberculosis--Hospitals and sanatoriums)

PETROV, Ye.D., kandidat meditsinskikh nauk.

Special aspects of the method of climatotherapy of tuberculosis during the cold season on Crimea's southern shore. Probl.tub. no.5:56-60 S-O '53.
(MLHA 6:12)

1. Iz kliniki legochnogo tuberkuleza Instituta klimatoterapii tuberkuleza (direktor Ye.D.Petrov).
(Tuberculosis) (Climatology, Medical)

PETROV, Ye.D., kand.med.nauk; GUZEYEVA, I.S.; RYAZANTSEVA, N.F.;
KHOROSHYN, G.M.

Treatment of pneumopleuritis in pulmonary tuberculosis on the
Crimean southern shore [with summary in French]. Probl.tub. 37
no.1:84-87 '59. (MIRA 12:2)

1. Iz klimatoterapevticheskoy kliniki (zav. - kand.med.nauk Ye.D.
Petrov) Instituta klimatoterapii tuberkuleza imeni I.M. Sechenova
(dir. - prof. S.R. Tatevosov).

(TUBERCULOSIS, PULMONARY, compl.
pneumopleurisy, climatother. (Rus))
(CLIMATE,

climatother. of pneumopleurisy in tuberc. (Rus))

PETROV, Ye. D.

Method of climatic therapy of tuberculosis in cold seasons
on the southern shores of Crimea. Probl. tuberk., Moskva
No. 5:56-60 Sept-Oct 1953. (GIML 25:5)

1. Candidate Medical Sciences. 2. Of the Clinic for
Pulmonary Tuberculosis of the Institute of Tuberculosis
Climatotherapy (Director ... Ye. D. Petrov).

PETROV, Ye. D.

Method of climatic therapy of tuberculosis in cold seasons
on the southern shores of Crimea. Probl. tuberk., Moskva
No. 5:56-60 Sept-Oct 1953. (CML 25:5)

1. Candidate Medical Sciences. 2. Of the Clinic for
Pulmonary Tuberculosis of the Institute of Tuberculosis
Climatotherapy (Director -- Ye. D. Petrov).

PETROV, Ye.D.

Considerations in classification of tuberculosis. Probl.
tuberk. Moskva No.6:62-63 Nov-Dec 1953. (CIML 25:5)

1. Candidate Medical Sciences, Director of the Institute
of Tuberculosis Climatotherapy at Yalta.

PETROV, Ye.D., kandidat meditsinskikh nauk.

Remarks on tuberculosis classification. Probl.tub. no.6:62-63 H-D '53.
(MLRA 6:12)

1. Direktor Instituta klimatoterapii tuberkuleza v Yalte.
(Tuberculosis) (Classification--Medicine)

PETROV, Ye.D., kand.med.nauk. Primali uchastiye: POKHITONOVA, M.P.,
prof.; ROL'YE, Z.Yu., prof. MASSINO, S.V., red.; MATVEYEVA,
M.M., tekhn.red.

[Textbook of methods for the climatological treatment of
tuberculosis] Metodicheskoe posobie po klimaticheskomu
lecheniiu bol'nykh tuberkulezom. Moskva, Medgiz, 1961. 64 p.
(MIRA 15:4)

1. Institut meditsinskoy klimatologii i klimatoterapii imeni
I.M.Sechenova v Yalte (for Petrov). 2. Institut tuberkuleza
AMN SSSR (for Pokhitonova, Rol'ye).
(TUBERCULOSIS) (CLIMATOLOGY, MEDICAL)

PETROW, Y. F. (and S. F. Osovets, Y. F. Masedkin, L. I. Pavlov, V. I. Shchedrin)

"INVESTIGATING THE MECHANISM OF PLASMA FORMATION IN A FIELD OF A LASER BEAM".

by S. F. Osovets, Y. F. Masedkin, L. I. Pavlov, Y. F. Petrow and V. I. Shchedrin.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 1-13 Sept. 1964.

ISKCZ, E. B., PETROV, YE. F.

Electric Welding

Problem of planned and preventive repair of automatic welding equipment. Avtom. svar.
4, No. 6(21) 1951.

9. Monthly List of Russian Accessions. Library of Congress, June 1958, Incl.

PETROV, Ye.G., kand. sel'skokhoz. nauk, KAZOV, I. I., inzh. (Moskva)

Meliorative state of lands in the Murgab Oasis and ways for its improvement. Gidr. 1 mel. 15 no. 5 3.9 My '64.

(MIRA 17 6)

PETROV, Ye.G.

Device for taking ground water samples from a given depth.
Pochvovedenie no.9:104-107 S '59. (MIRA 13:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy insstitut gidrotekhniki i
malioratsii.
(Water, Underground--Analysis)

L 18477-66 EWT(1)/EWP(1)/EWP(1)/T IJP(1)

ACC NR: AP6007792

SOURCE CODE: UR/0185/66/011/002/0124/0132

AUTHOR: Peletmin's'kyy, S. V.—Peletminskiy, S. V.; Petrov, Ye. G.—Petrov, E. G.;
Yatsenko, O. O.—Yatsenko, A. A.

ORG: Physical and Technical Institute AN URSR, Kharkov (Fizyko-tekhnichnyy instytut AN URSR)

TITLE: On ^{21, 44, 55} motion equations of singularities

40
B

SOURCE: Ukrayins'kyy fizychnyy zhurnal, v. 11, no. 2, 1966, 124-132

TOPIC TAGS: motion equation, gravitation field, unified field theory, relativity principle, Lorentz transformation

ABSTRACT: The structure of singularities of a gravitational field in the presence of an external gravitational field was investigated. Motion equations of the singularities are obtained as conditions of the solvability of the field equations. An extended dynamic Lorentz principle, necessary for finding motion equations of singularities in nonlinear field theory, is derived as the condition of solvability of the equations of a weak gravitational field. Orig. art. has: 22 formulas. [Based on author's abstract.] ^{21, 44, 55}

SUB CODE: 20/ SUBM DATE: 18May65/ ORIG REF: 003/ OTH REF: 001/

Card 1/1 MC

2

PETROV, Ye.G., kand. sel'skokh. nauk; YEMEL'YANOV, V.A., kand. sel'skokh. nauk

Results and possibilities of using nuclear radiations and
radioactive tracers in hydraulic engineering and irrigation and
drainage investigations. Trudy VNIIGiM 38:5-12 '62.

(MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii imeni A.N. Kostyakova.

(Hydraulic engineering—Research)

(Radiology, Industrial)

PETROV, Ye.G., kand.sel'skokhoz.nauk; PREOBRAZHENSKAYA, M.V., kand.
sel'skokhoz.nauk

Effect of sprinkler irrigation on the soil water and salt
balance in cotton fields following fall saturation irrigation
under conditions existing on the "Pakhta-Aral" State Farm.
Dokl.Akad.sel'khoz. 24 no.10:43-48 '59. (MIRA 13:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii imeni A.N.Kostyakova. Predstavlena chlenom-
korrespondentom Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk imeni V.I.Lenina A.M.TSarevskim.

(South Kazakhstan Province--Irrigation farming)

USSR / Soil Science. Cultivation. Improvement. Erosion.

J-4

Abstr Jour : Ref Zhur - Biologiya, No 16, 1958, No. 70751

Author : Petrov, Yo. G.

Inst : IS USSR

Title : Current Status of the Technique of Irrigating Agricultural
Crops

Orig Pub : V sb.: Biol. osnovy oroshayem. zemled., M., AN SSSR, 1957,
86-90

: Abstract : No abstract given

Card 1/1

41

PETROV, Ye.G., kand. sel'skokhoz. nauk; ROBCHENKO, V.I., kand. sel'skokhoz
nauk; SID'KO, A.A., kand. sel'skokhoz. nauk; MYASISHCHEV, I.I., inzh.

Basic leaching of salinized soils in the Golodnaya Steppe, Sibt. i
mel. 17 no.3:10-20 Mr '65. (MIRA 18 4

PFETROV, Ye.G., kand. sel'skokhoz. nauk; BOBCHENKO, V.I., kand. sel'skokhoz.
nauk; SID'KO, A.A., kand. sel'skokhoz. nauk; MAKAROVA, T.I., kand.
sel'skokhoz. nauk; MYASISHCHEV, S.I., inzh.

Leaching salinized soils in rice growing. Gidr. i mel. 1'
no.10:1-14 O '65. (MIRA 18:10)

PETROV, Yevgeniy Grigor'yevich; SOLOV'YEV, V.A.; CHERNYKH, A.A.; ORLOVA,
V.P., redaktor; GUREVICH, M.M., tekhnicheskiiy redaktor.

[Snow water irrigation and the accumulation of moisture] Izmannoe
oroshenie i vlagonakoplenie. Moskva, Gos.izd-vo sel'khoz.lit-ry,
1956. 165 p. (MIRA 10:6)

(Irrigation)

PETROV, Ye.G.

Use of local runoff and snow water irrigation in arid regions.
Zemledelie 5 no.9:10-20 S '57. (MLRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii.

(Irrigation)

PETROV, Ye.G., kand. sel'skokhozyaystvennykh nauk; CHERNYKH A.A., kand.
tekhn. nauk.

Basin snow-water irrigation in the Kazakh SSR. Zemledelie 6
no.11:68-72 N '58. (MIRA 11:11)
(Kazakhstan--Irrigation)

PETROV, Ye. G...kandidat sel'skokhozyaystvennykh nauk.

Utilization of local snow-water runoff for agriculture in arid
regions. Gidr. i mel. 8 no.11:3-14 N '56. (MIRA 10:4)
(Runoff) (Irrigation)

PETROV, Ye. G.

5791. PETROV, YE. G. (ros'teniye Ovoshchnykh Kul'tur. 2-ye. Pererabot. 1 Dor. izd. m., (Mosk. Rabochiy), 1954. 84s. s Ill. 20sm. 72,00 Ekz. lr-(55-100) 635:631.6 (47.31)

SC: Knizh naya, Letopis, Vol. 1, 1955

PETROV, Ye.G., kand.sel'skokhoz.nauk; KHARITONOV, B.D., inzh.; VANEYAN,
S.S., inzh.

The SPM-200 automotive irrigating machine. Gidr. i mel. 13
no.2:13-24 f '61. (MIRA 14:9)
(Irrigation.)

PETROV, YF.G., kandidat sel'skokhozyaystvennykh nauk.

Snow waters and millions of poods of grain. Nauka i pered.op. v
sel'khoz. 6 no.12:26-28 D '56. (MIRA 10:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i
mellioratsii.

(Snow)

(Grain)

PETROV, YU. G.

Rice

Hill rice. *Oryza sativa* L., var. *Indica*.

Monthly List of Russian Accessions, Library of Congress, December 1954.

PETROV, YE. G.

USSR/Geophysics - Irrigation Specialists

Jun 52

"Chronicles: Conference on the Problem Concerning Methods for Irrigation of Agricultural Cultivation," A. I. Shklyarevskiy

"Gidrotekh i Melio" No 6, pp 75-80

During 12- 14 Mar 52, in Moscow, the Hydrotechnics and Amelioration Sec of the All-Union Acad of Agri Sci imeni Lenin held a plenum, with participation of agricultural and hydrological administrators, directors, and main agronomists of MTS (machine-tractor stations), besides presidents of kolkhozs in irrigated districts of Kuybyshev and Saratov Oblasts. Discussed were problems of utilizing irrigated lands under conditions met beyond the Volga and in other new regions being irrigated. Reports were heard from 22 lecturers.

PA 227T46

PETROV, Ye.G.

Mechanized soil sampler. Pochvovedenie no.8:102-103 Ag '59.
(MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii.

(Soils--Analysis)

PETROV, YE. G.

PA 233T3

USSR/Agriculture - Rice

Sep 52

"'Dry Valley' Rice," Ye. G. Petrov, Cand Agr Sci

"Nauka i Zhizn'" Vol 19, No 9, pp 34, 35

Describes the properties of new varieties of rice developed in the USSR. These varieties of rice do not have to be planted in flooded fields. They do not require more water than wheat. Intermittent irrigation is adequate.

The new rice will be cultivated wherever new irrigation systems are being constructed along the Volga, Don, and Dnepr, as well as on

233T3

irrigated lands of the central chernozem area. Work on the cultivation of this type of rice has been done at the Novocherkassk Sci Res Inst of Hydraulic Eng and Land Improvement, the All-Union Rice Sta, the All-Union Inst of Hydraulic Eng and Land Improvement, and the Ukrainian Inst of Hydraulic Eng and Land Improvement.

233T3

PETROV, Ye. G.: CHERNYKH, A. A.

USSR (600)

Forestry Engineering

Local snow water irrigation of forest belts. Gidr. i mel. 4 no. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

GRAMMATIKATI, Ol'ga Grigor'yevna, kand. biol. nauk; PETROV,
Yevgeniy Grigor'yevich, kand. sel'khoz. nauk; KRAVCHENKO,
G.Ya., red.; KOZLOVSKAYA, M.D., tekhn. red.; KORYAKOVA,
G.N., tekhn. red.

[Saturation irrigation] Vlagozariadobnoe oroshenie. ...
dop. Moskva, Sel'khozizdat, 1963. 150 p. (MIRA 1964)

PETROV, Yevgeniy Grigor'yevich, kand.sel'skokhoz.nauk; GRAMMATIKATI,
Ol'ga Grigor'yevna, kand.biolog.nauk; ORLOVA, V.P., red.;
GOR'KOVA, Z.D., tekhn.red.

[Saturation irrigation] Vlagozariadochnoe oroshenie. Moskva,
Gos.izd-vo sel'khoz.lit-ry, 1958. 109 p. (MIRA 12:7)
(Irrigation farming)

PETROV, Ye.G., kand.sel'skokhozyaystvennykh nauk; CHERNYKH, A.A., kand.
tekhn.nauk, ALATORTSEV, Ye.K., kand.tekhn.nauk

Measures for utilizing snow-water runoff in the agriculture of
the steppe zone; work practices of the Dergachi Machine-Tractor
Station. Trudy VNIIGiM 32:29-35 '59. (MIRA 13:8)
(Saratov Province--Irrigation)

CATEGORY : USSR
 CATEGORY : Soil Science. Tillage. Improvement. Erosion. I
 PER. FOUR. : Z. P. Pol., No. 1, 1958, pp. 10.
 TITLE : Petrov, re. 2.
 TITLE : Utilization of the waters of local drainage and
 Estuary Irrigation in Aral Region.
 PER. FIVE. : Zemlekoliv, 1957, No. 9, 10-20
 TITLE : Construction of deep water estuaries with enclosures of
 1.5-2 meters in height is uneconomical in the area
 of Zavolzh'ye. It is recommended to build small water
 estuaries with small enclosures 3-5 meters in
 height and 1-2 centimeters in width at the top. The
 side slopes of the enclosures should be flat to
 convenience of the movement of agricultural machines.

PETROV, Yu.I., kand.fiz.-matem.nauk; PETROV, Ye.I., starshiy nauchnyy
sotrudnik

Stress waves in rod-type machine parts caused by a longitudinal impact. Izv.vys.ucheb.zav.; mashinostr. no.5:11-24
'59. (MIRA 13:4)

1. Institut khimicheskoy fiziki AN SSSR (for Petrov).
2. Vsesoyuznyy Nauchno-issledovatel'skiy institut legkogo
tekstil'nogo mashinostroyeniya.
(Strains and stresses)

PETROV, Yu.I.; PETROV, Ye.I.

Effect of shock waves on the wear and tear of knitting
needle hooks. Tekst.prom. 20 no.5:39-43 My '60.

(MIRA 13:8)

(Knitting machines) (Strains and stresses)

PETROV, Ye.I.

Operating automatic hosiery machines at high speeds. Leg.prom.

18 no.12:27-30 D '58.

(MIRA 11:12)

(Knitting machines)

PETROV, Ye.I., kand.tekhn.nauk

New needle shapes for high-speed automatic hosiery machines. Tekst .
prom. 22 no.1:69-72 Ja '62. (MIRA 15:2)

1. Zaveduyushchiy laboratoriyey chulochno-nosochnykh mashin
Vsesoyuznogo nauchno-issledovatel'skogo instituta legkogo i
tekstil'nogo mashinostroyeniya.
(Knitting machinery--Equipment and supplies)

PETROV, Ye.I.; NOVOSELOV, V.A.; Prinimali uchastiye: CHVANOV, P.A.;
SHIROKOV, L.F.; KOROBKOV, V.P.; KULAYEV, P.A.; POPKOVA, L.F.;
LEBEDEV, I.M.; BAKAYEV, A.M.

Flotation of Sibay deposit zinc ores. TSvet. met. 35 no.3:
15-18 Mr '62. (MIRA 15:4)
(Flotation) (Sibay region—Zinc ores)

PETROV, Ye. I., inzh.

Striation of hosiery caused by multiple-system knitting. Leg. pron.
18 no. 4:27-30 Ap '58. (MIRA 11:4)
(Hosiery)

PETROV, Ye.I.

Impact loading of needles in circular hosiery machines. Leg. prom.
18 no.1:18-19 Ja '58. (MIRA 11:2)

(Knitting machines)

PETROV, Ye.M.: ANFEROVA, V.N.

Food resources for wild bees of the Pribel'skiy region. Trudy Bash.
gos.zap. no.2:61-84 '63. (MIRA 18:5)

PETROV, Ye.M.

Causses of death and weakening of wild bee families. Trudy Bash.gcs.
zap. no.2:107-114 '63. (MIRA 18:5)

PETROV, Ye. M., inzh.; KHEYFETS, Ye. D., inzh.; SHUGOL', I. S., inzh.

Design of the centering fastening of a hydraulic engine. Vest.
mashinostr. 42 no.10:85 0 '62. (MIRA 15:10)

(Hydraulic engines)

L 21006-66 EPP(n)-2/EMP(m)/EEC(k)-2/EMP(k)/ENT(1)/ENT(m)/ETC(m)-6/T-2/PSS-2/EMP(e)/
 ACCESSION NR: AP5014204 EMP(f)/EMP(t) IJP(e) UR/0026/65/000/005/0113/0116
 TT/WVE/WN/JD/JG/GN

AUTHOR: Petrov, Ye. M. (Moscow)

TITLE: Future space engines ³³

SOURCE: Priroda, ⁵⁴no. 5, 1965, 113-116

TOPIC TAGS: arc jet propulsion, plasma propulsion, electromagnetic propulsion, spacecraft propulsion equipment, ion propulsion, spacecraft propulsion

ABSTRACT:

In order to orbit a payload around the Earth, powerful engines are required to overcome the Earth's gravitational attraction. Once in space, however, a vehicle can be accelerated to high speeds by efficient, low-thrust engines which can be operated for long periods of time. Such engines have exhaust velocities of 30—300 km/sec and specific impulses of 3000—30,000 sec. The Soviet Union is said to be giving high priority to the development of electrical engines suitable for interplanetary travel. The following is a general discussion of such engines. ¹²

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ACCESSION NR: AP5014204

In the arc-jet engine, thrust is produced by a working medium heated to 20,000°C by an electric arc and discharged through a nozzle at up to 15 to 20 km/sec, imparting a specific impulse of 1500—2000 sec. The chamber walls serve as anode and cathode for the electric arc, and the propellant serves to cool the chamber walls and stabilize the arc. With this process, called plasma generation by heat (see Fig. 1), higher exhaust velocities can be achieved by "thermal acceleration" of the plasma; however, operation at high specific-impulse levels is disadvantageous from the standpoint of power. Further increases in exhaust velocity are achieved by using an electromagnetic field. The interaction between the electric current in the plasma and a magnetic field accelerates the charged particles in the plasma in the same direction. This engine can be developed with either a self-contained or an external magnetic field. Ion engines exist which use surface as well as volume ionization. In the former, the ions are formed as a result of contact between the working medium and the heated surface of the ionizer. In order to form an ion on the heated surface of the ionizer, it is necessary that the ionizer material have a high work function and that the working medium have low ionization potential. This is attainable only with certain combinations of vapors. The most suitable ratio is obtained with

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L 21006-66

ACCESSION NR: AP5014204

27-57 27 27 16.44.75 4
tungsten and cesium vapor; when cesium vapor is passed through a porous-tungsten ionizer, heated to 1100-1300 degrees C., almost 100% of the cesium is ionized. So that the rocket will not become negatively charged, electrons from a neutralizer hit the ion pencil and neutralize it.

In ion engines having volume ionization, ions and electrons are formed by an electric arc or an oscillating discharge stabilized by a magnetic field. The working medium enters the ion chamber, on which is superimposed a linear magnetic field. Inside the chamber is an electron emitter. A screen and a triggering device are under the same potential, and the magnetic field impedes bombardment of the ion-chamber walls, which serve as the anode, by ionized particles. These particles drift (oscillate) from the entrance of the chamber toward the screen and back, ionizing the working medium (see Figs. 2 and 3). In the linear magnetic field of an ion chamber, the lifetime of electrons is long; therefore, the working medium is almost fully ionized. Ions from the plasma thus formed are drawn by an accelerating grid and are discharged. Since ions are being accelerated, neutralization is necessitated.

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L 21006-66

ACCESSION NR: AP5014204

To determine whether neutralization is taking place, i. e., whether the engine is producing thrust, the engine must be tested at an altitude of at least 1500 km. Plasma engines were used for the first time on the Zond-2 Soviet spacecraft (for orientation purposes only).

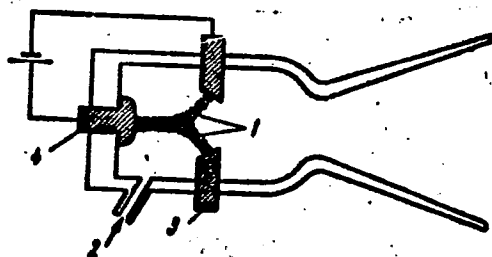


Fig. 1. Arc-jet engine

1 - Arc; 2 - gas inlet; 3 - anode;
4 - cathode.

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L 21006-66

ACCESSION NR: AP5014204

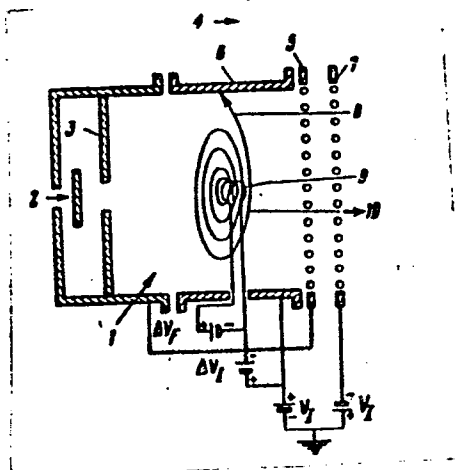


Fig. 2. Ion engine

1 - Ion chamber; 2 - working-medium stream; 3 - baffle plate; 4 - magnet; 5 - grid; 6 - anode; 7 - accelerator; 8 - electron trajectory; 9 - electron emitter; 10 - ion pencil.

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L 21006-66

ACCESSION NR: AP5014204

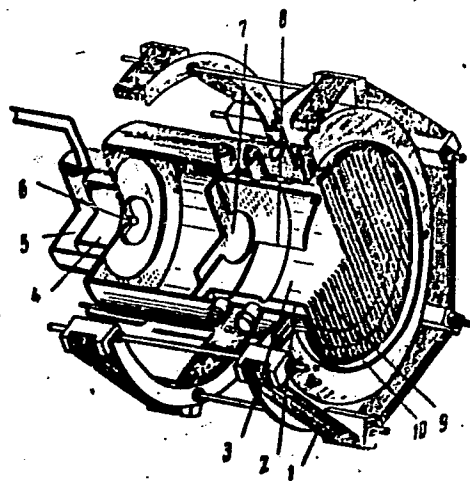


Fig. 3. Cross-section of ion engine

- 1 - Magnetic-field coil; 2 - anode;
- 3 - ion chamber; 4 - evaporator;
- 5 - vapor jacket; 6 - exhaust;
- 7 - manifold; 8 - cathode; 9 - filter;
- 10 - accelerator.

ASSOCIATION: none

SUBMITTED: 00

NR REF SOV: 000

Card 6/6

ENCL: 00

OTHER: 000

SUB CODE: PR, JV

ATD Press: 4093-F

28 (4)

AUTHORS:

Petrov, Ye. M., Kokhova, V. F.

05843

SOV/76-33-10-41/45

TITLE:

Small Autoclave With Thermostat and Mixer

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2372 - 2374
(USSR)

ABSTRACT:

The authors designed a device consisting of a small autoclave, a thermostat, and a mixer used to stir the content of the autoclave (Fig 1). The device is used for investigations of phase equilibria of systems with liquid components at temperatures of above 100 C. The description indicates among other things that the autoclave has a removable reaction vessel with an additional container for the filtrate, and that filtration, i.e. separation of the liquid phase is brought about by centrifugation. All parts of the autoclave are made of stainless steel of the brands 1X189TN or 1X18N11B. The thermostat (Fig 2) is also described, which shows among other things that a contact thermometer with a 6P6-tube and an electron relay of the MKU-48RU 450 115 OD type is used for temperature control. The mixer is driven by a 2ASM-50 induction motor and consists of a holder for the autoclave and a reduction gear which is coupled with the electric motor. There are 2 figures.

Card 1/2

Small Autoclave With Thermostat and Mixer

05843

SOV/76-33-10-41/45

ASSOCIATION: Nauchno-issledovatel'skiy institut teploenergeticheskogo priborostroyeniya (Scientific Research Institute for the Manufacture of Thermoelectric Apparatus). Akademiya nauk SSSR, Institut organicheskoy i neorganicheskoy khimii, Moskva (Academy of Sciences of the USSR, Institute of Organic and Inorganic Chemistry, Moscow)

SUBMITTED: February 10, 1959

Card 2/2

PETROV, Ye.M., inzh.; YEVDOKIMOV, M.T., inzh.

Automatizing crane-operated lever scales. Sudostroenie 24 no. 3: 64-65
Mr '58. (MIRA 11:4)

(Scales (Weighing instruments))

(Cranes, derricks, etc.) (Automatic control)

PETROV, Ye. M., inzh.; YEVDOKIMOV, M.T.

Horizontal centrifugal casting units. Vest. mash. 37 no.8:33-36 Ag
'57. (MLRA 10:9)
(Foundry machinery and supplies)

LOPATIN, K.I., kandidat tekhnicheskikh nauk; ASKINAZI, Z.M., inzhener;
BLINER, L.G., inzhener; PETROV, Ye.M., inzhener; LOSEVA, T.K.;
SEVAST'YANOV, I.P.

Purification of water gas by triethanolamine. Masl.-zhir.prom.22
no.4:12-13 '56. (MIRA 9:9)

1.Leningradskiy khimiko-farmatsevticheskiy institut (for Lopatin).
2.Leningradskiy zavod "Solelin" (for Askinazi, Bliner, Petrov,
Sevast'yanov).
(Water gas) (Ethanol)

PUMPER, Ye.Ya.; PETROV, Ye.M.

Analysis of medium-frequency amplifiers using semiconductor triodes.
Radiotekhnika 10 no.12:21-32 D '55. (MLRA 9:3)
(Amplifiers, Electron-tube)

PETROV, Ye.M., inzh.

Self-lubricating inclined packings of rotating joints. Sudostroenie
29 no.1:68-69 Ja '63. (MIRA 16:3)
(Packing (Mechanical engineering))

S/229/63/000/001/004/004
E202/E192

AUTHOR: Petrov, Ye. M., Engineer

TITLE: Self-lubricated inclined seals of rotating couplings

PERIODICAL: Sudostroyeniye, no. 1, 1963, 68-69

TEXT: The author gives a detailed design of a sealing element which guarantees a constant supply of lubricant with each revolution of the shaft to the sealing elements. The latter are distributed not perpendicularly to the plane of shaft rotation but under a small angle. This work is covered by Author's Certificate no. 127525. The main advantages claimed as a result of improved lubrication are the decreased friction, reduced heating of the packing with the subsequent decrease of wear and increased useful life. The sealing rings are made of circular cross-section rubber which permits simplicity of construction and application to a wide pressure range. The optimum angle of inclination of the groove under the sealing ring depends on the magnitude of the pressure of the sealing medium and the physical and mechanical properties of the seal. The sealing rings are in grooves which may be placed either in the bush or on the shaft.

Card 1/2

Self-lubricated inclined seals ...

S/229/63/000/001/004/004
E202/E192

itself. In the latter case allowance for the lowering of the strength of the shaft is recommended. It is also recommended that all the sealing surfaces should be chromium plated. A graph showing moments of friction of three sealing rings (with rubber hardness 64 Shore) is also given. The curves show frictional moments of the new sealing glands distributed on a shaft under an angle of 1° but working with various lubricants. These are compared with the third graph showing the orthodox sealing ring placed on the shaft in the plane perpendicular to its axis. It is concluded that the new seal using the lubricant ЦИАТИМ-221 (TsIATIM-221) exhibits the lowest frictional moment. During these tests one of the 200 mm diameter rings with a cross-sectional diameter of 6.5 mm worked for 500 hours with a unilateral oil pressure up to 40 kg/cm^2 and a circumferential velocity of 15.8 cm/sec . As a result, a uniform wear of 0.005 mm was observed on a chromium-plated bush and there was no visible oil leak. Industrial use of these new seals showed their low wear and applicability to high revolutions. The new rubber seals may be safely employed for pressures up to 100 kg/cm^2 as long as a suitable sealing material and lubricant are selected.

Card 2/2

There are 3 figures and 1 table.